

From wang!elf.wang.com!ucsd.edu!info-hams-relay Tue Apr 2 18:45:19 1991 remote  
from tosspot  
Received: by tosspot (1.64/waf)  
via UUCP; Tue, 02 Apr 91 20:09:49 EST  
for lee  
Received: from somewhere by elf.wang.com id aa25057; Tue, 2 Apr 91 18:45:18 GMT  
Received: from ucsd.edu by relay1.UU.NET with SMTP  
(5.61/UUNET-shadow-mx) id AA25741; Tue, 2 Apr 91 13:08:36 -0500  
Received: by ucsd.edu; id AA25829  
sendmail 5.64/UCSD-2.1-sun  
Tue, 2 Apr 91 08:15:41 -0800 for brian  
Received: by ucsd.edu; id AA25792  
sendmail 5.64/UCSD-2.1-sun  
Tue, 2 Apr 91 08:15:29 -0800 for /usr/lib/sendmail -oc -odb -oQ/var/spool/  
lqueue -oi -finfo-hams-relay info-hams-list  
Message-Id: <9104021615.AA25792@ucsd.edu>  
Date: Tue, 2 Apr 91 08:15:27 PST  
From: Info-Hams Mailing List and Newsgroup <info-hams-relay@ucsd.edu>  
Reply-To: Info-Hams@ucsd.edu  
Subject: Info-Hams Digest V91 #260  
To: Info-Hams@ucsd.edu

Info-Hams Digest                      Tue, 2 Apr 91                      Volume 91 : Issue 260

Today's Topics:

anonymous ftp sites for ham-radio software  
Can you really learn code from tapes?  
DX Bulletin  
frequency standards  
Licensing Philosophy? (2 msgs)  
Monthly On-Line Elmers Resource Directory  
Tube designations... (2 msgs)  
Who's responsible for Towers anyways?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

-----  
Date: 1 Apr 91 16:16:07 GMT

From: mcsun!hp4nl!svin02!svbs01!rcleon@uunet.uu.net  
Subject: anonymous ftp sites for ham-radio software  
To: info-hams@ucsd.edu

Can someone send me a couple of ftp-sites which provide ham-radio software/utilities? Maybe there is already a list of those sites, but if there isn't, and if people are interested, I'll compile a summary and post it here. Thanks,

-Leon  
email : rcleon@win.tue.nl

-----  
Date: 2 Apr 91 11:16:06 GMT  
From: crash!pro-harvest.cts.com!wlup69@ucsd.edu  
Subject: Can you really learn code from tapes?  
To: info-hams@ucsd.edu

In-Reply-To: message from henryb@hpspdra.HP.COM

|The big advantage of tapes of course is that many of us can listen to  
|them during a drive to work (I suppose this is un-quality time in the  
|modern vernacular).

Actually, I think you mean non-productive time...

Seriously though, with the new Technician Class, why waste time using code you're never going to use. At least, I know I won't...If I ever decide to get a Ham license, (or a ham for dinner) I'm not gonna spend a lot of time to learn something I'll never use.

I mean, let's be realistic. In the romantic days of radio, when a rig weighed two hundred pounds and took up your whole desk, it might have been important to be able to rip the cover off the old monster, gran two wires, and manually chirp out an emergency message to the National Gaurd just before the tornado turns your tower into an ICBM...

But nowadays, I'd be willing to bet manual CW would take a couple of hours to set up for.

/		\
ProLine: wlup69@pro-harvest	"That man is the chairman	
Internet: wlup69@pro-harvest.cts.com	of the senate prayer	
UUCP: crash!pro-harvest!wlup69	comittee. You don't bring	
ARPA: crash!pro-harvest!wlup69@nosc.mil	up blowjobs. You wait for	
-----	him to bring them up."	

MA BELL IS A DIRTY OLD BROAD

-- Air America  
A damn funny movie.

-----  
Date: 2 Apr 91 12:45:12 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: DX Bulletin  
To: info-hams@ucsd.edu

The Ohio/Penn Dx Packet Cluster  
DX Bulletin No. 004 (OPDX.004)  
April 1, 1991  
Editor Tedd Mirgliotta, KB8NW  
Provided BARF-80 BBS Cleveland, Ohio  
Online at 216-237-8208 2400/1200/300 8/N/1

Thanks to the Northern Ohio Amateur Radio Society, Northern Ohio DX Association, WB3LHD, WK3N, KG4DD, K8KR, KQ8M, WA8MEM and K8YSE for the following DX information.

ET, ETHIOPIA. By the time you read this bulletin, Jack, W4IBB, who was signing ET2A, has left Ethiopia for about one month. His departure was about 11 PM Saturday and his arrival back in Atlanta will be 3 PM Sunday. Jack's license and equipment will be left with the ET officials until his return. Jack said he would try to bring a key with him when he returns in May. Also the DXCC Desk has received the documentation for this operation and have accepted it. ET2A QSL cards will be accepted as they are received. Now for a sad note, Jack's QSL manager, Peter, WB2WOW, became a Silent Key this past week. Peter was also QSL manager for ST0DX. Both ET2A and ST0DX QSLing chores will be taken over by WA2NHA. The DX'ers in Ohio/Penn area would like to send their deepest sympathy to the family of WB2WOW.

A51, BHUTAN. The word for this one is still go according to Jim Smith, VK9NS. Jim and his wife, Kirsti, VK9NL, will operate for two weeks beginning May 1. Jim has also received permission to send his equipment ahead of their arrival. This operation looks very promising with a use of a beam antenna and amplifier.

KG4, GUANTANAMO BAY. Doug, KG4DD, is presently off the air because of transmitter problems. Hopefully, Doug will be up and operational shortly. He plans on operating 75 meters with a possibility of operating 160 meters in April. KG4DD will be leaving Guantanamo Bay in late Spring of 1992, so do not delay QSL's. QSL KG4DD via the 1991 CallBook.

S2, BANGLADESH. Jim Smith, VK9NS, is in Bangladesh. Word has it Jim will only be able to operate on six frequencies: 14020, 21020, 28020, 14155, 21255 and 28455. He will be operating both SSB and CW, but on CW he will be operating at a speed that the Bangladesh officials can monitor. As this bulletin was being written, the ARRL DX Bulletin announced that Jim still has not received his official license, but hoped to be on the air by Saturday or Monday. Jim INSISTS on one QSO per mode and per band.

TZ, MALI. It has been reported that VU2DZ will be going to Mali later this year.

YI, IRAQ. On March 27, YI1BGD showed up on 21026 KHz at 1921Z.

BAND CONDITIONS. Terrible band conditions in the first part of the week happen, because of the increase of the A and K indices, stratwarms and several flares. The week started with major flares on the 24th at 0340Z and on the 25th at 0024Z. This caused the A Index to jump to 84 and the K Index to 6 on the 25th. Conditions began to get better for the contest weekend on the 28th. The A and K indices drop to 17 and 3 with a Solar Flux level of 204. By contest time the Flux was 191 with the A at 3 and K at 2.

CARDS IN THE MAIL. The T33R cards for the Banaba DXpedition are beginning to show up in the mail and the 708AA cards are still trickling out.

NODXA AWARDS NET. The North Ohio DX Association Awards Net is held every Saturday on 28425 KHz at 1700 UTC. An attractive certificate is available to all DX'ers and Award Hunters. Contacts made with 10 NODXA members for stateside stations (except KH and KL only 5 ) or 5 NODXA contacts for all other countries qualify for multi-color certificate. For further info listen to the net or contact Awards Manager, Dwaine Modock, WA8MEM.

REMINDER. Next weekend your clocks SPRING head by one hour!!

SPACE DX. It seems U2MIR (Soviet Space Station) will have company in space. The all ham crew of STS-37 will be on the Space Shuttle Atlantis, which is scheduled to lift-off April 5 at 1418 UTC. The onboard packet station's callsign will be KB5AWP. While KB5AWP transmits on 145.51 MHz and receives on 144.91 Mhz, stations are reminded to only transmit while the shuttle is in range. For further updates on voice and SSTV times, listen to Goddard ARC, WA3NAN, on 3860, 7185, 14295, and 21395 KHz.

QUESTION OF THE WEEK. What happen to the group that was planning to go to Navassa Island early April?

Good Luck on DX de KB8NW

Excerpts and distribution of The OPDX Bulletin are granted as long as OPDX/BARF80 receive credit. To contribute DX info, call BARF-80 BBS online at 216-237-8208 2400/1200/300 and leave a message with the Sysop or send a message via packet to KB8NW @ WA8BXN.OH.USA.NA

73 -- marty -- nr3z                    skitch@nadc.navy.mil

-----  
Date: 1 Apr 91 16:25:06 GMT  
From: orion.oac.uci.edu!ucivax!jarthur!elroy.jpl.nasa.gov!swrinde!cs.utexas.edu!  
convex!texsun!letni!rwsys!kf5iw!k5qwb!lrk@ucsd.edu  
Subject: frequency standards  
To: info-hams@ucsd.edu

rlong@ee.eng.ohio-state.edu (Prof. Ronald Long) writes:

> I recall reading once that the tv networks use rubidium clocks to  
> set the color burst frequency and that you could pick off a signal  
> from your home tv which would essentially give you access to a  
> frequency standard of laboratory accuracy. There was a caveat that  
> you had to be careful to get a live broadcast.  
>  
> --  
> Ronald K. Long  
> Ohio State Univ EE Dept., 2015 Neil Ave., Columbus, OH 43210  
> rlong@phonon.eng.ohio-state.edu

There was a time when only the network feed had this and the local station or a network live remote might not. Due to things crashing when the remote camera went down and digital technology, I think all stations use the network timing and sync the local stuff to it. This method should give you a good frequency standard most of the time and I'm supprized it's not more common. If you find a good source for such equipment, post it.

-----  
73,                    1rk@k5qwb.UUCP      1rk%k5qwb@kf5iw.UUCP  
Lyn Kennedy           utacfd.utarl.edu!letni!rwsys!kf5iw!k5qwb!lrk  
                      K5QWB @ N5LDD.#NTX.TX.US  
                      P.O. Box 5133, Ovilla, TX, USA 75154

----- "We have met the enemy and they are us." Pogo -----

-----  
Date: 2 Apr 91 13:31:00 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Licensing Philosophy?  
To: info-hams@ucsd.edu

Bill asks:

> That is, the government doesn't believe you need to know how carburetors,  
> exhausts, fuel injection, air conditioning, etc., work to be a responsible  
> vehicle operator without interfering with others on the roadways. Why then  
> must a radio operator know about the internals of his gear to obtain access  
> to the airwaves?

Greatly different reasons for existence. You are not given a driver's license to further the state of the art of vehicular transportation, but rather for purely utilitarian (getting where you need to go) and safety (not killing someone while doing it) reasons. On the other hand, Part 97.1 of "The Rules" describes the fundamental purposes of the Amateur Radio Service, including

- Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art;

- Encouragement and improvement of the amateur radio service through rules which provide for advancing skills in both the communications and technical phases of the art;

and

- Expansion of the existing reservoir within the amateur radio service of trained operators, technicians and electronics experts.

This is not minor stuff. Amateurs have in fact contributed to the art, and will no doubt continue to do so. That many have been engineers in commercial labs is beside the point; they frequently used the ham bands as the testing/proving grounds for advances. Without this technical aspect, the nature of Amateur Radio would be vastly different, even \*IF\* many hams do not themselves push the technical limits.

> On the other hand, no one needs to know this. You can always pay someone  
> to put up your antenna, to fix your TVI problems when neighbors complain,

Ham Radio would then become a \*COMMUNICATIONS UTILITY\* hobby rather than an \*EXPERIMENTAL\* hobby, and some of the basic reasons for maintaining it would vanish. It might then be easier to also discount the public service and goodwill aspects of the fundamental principals, and BINGO!: Ham Radio can finally give up its spectrum to "more important" services.

You are, in effect, asking why Amateur Radio cannot simply be a communications

utility, with professional services available to fix it when it breaks down. The answer is that there are already plenty of communications utilities (yes, even in dire emergencies: chances are great that a cellular phone will pass by an accident long before a 2m mobile with autopatch access), and Amateur Radio would never be able, and should not try, to compete with them. And that's why, in general, when I need to reach out and touch someone, I pick up the phone, not the mike.

steve - W3GRG

-----  
Date: 2 Apr 91 15:40:11 GMT  
From: usc!rpi!crdgv1!galaxy@ucsd.edu  
Subject: Licensing Philosophy?  
To: info-hams@ucsd.edu

In article <12562@pt.cs.cmu.edu>, chiles@chiles (Bill Chiles) writes:

>Then he made two more points: with the state of modern gear, one or two can  
>fix their own rigs without a factory, and the rigs do everything. The  
>other point was that the government doesn't restrict the public's access to  
>operating motor vehicles to those who demonstrate basic mechanic's skills.  
>That is, the government doesn't believe you need to know how carburetors,  
>exhausts, fuel injection, air conditioning, etc., work to be a responsible  
>vehicle operator without interfering with others on the roadways.

Well, I would counter that by saying that most of the people you see blocking traffic with broken down cars (most, not all), are there because they don't have a clue how to keep their cars running well, or what to do when the temperature needle starts climbing, or how to effect what may be a very simple repair rather than wait for a tow truck. They ARE interfering with others due to their mechanical ignorance.

>  
>So, what is the philosophy behind the government's rulings on access to  
>certain frequencies? Is the technical restriction archaic? If the  
>government wants a ready body of technical radio operators for wars, then  
>it could provide scholarships for students to pursue this knowledge.

A large part of the purpose of ham radio is to promote expertise in electronics and radio. The tests give much more bang for the buck in promoting this than scholarships do... in case you hadn't noticed, the govvie's budget is running a little tight this year, like every year.

-----  
Date: 1 Apr 91 22:36:07 GMT

From: tut.cis.ohio-state.edu!magnus.acs.ohio-state.edu!zaphod.mps.ohio-state.edu!  
caen!kuhub.cc.ukans.edu!zeus.unomaha.edu!acmnews@uchvax.berkeley.edu  
Subject: Monthly On-Line Elmers Resource Directory  
To: info-hams@ucsd.edu

Greetings Netters,

I am currently compiling a directory of On-Line Elmers. These are people who, by virtue of skill and knowledge in an area of expertise in ham radio, are willing to field E-mail by readers of the rec.radio.\* groups.

Volunteers need only send me their name, E-mail address, and area of expertise. As requested, here is a suggested list of areas of expertise that are needed:

1. Volunteer Examiners
2. Novice Instructors
3. DX'ers and Contesters
4. QRP
5. Homebrewers
6. Packet Ops (both AX.25 and TCP/IP)
7. VHF and Repeaters
8. OSCAR and other satellites
9. MARS (Military Affiliate Radio System)
10. CAP (Civil Air Patrol)
11. ARES (Amateur Radio Emergency Service)
12. RACES (Radio Amateur Civil Emergency Service)
13. Skywarn (Amateur Weather Spotters)
14. ARRL Field Organization (American Radio Relay League)

"Generalist" or "Miscellaneous" Elmers are also quite welcome. Naturally, the more that volunteer, the more the work is distributed. If upon volunteering, you are unable to meet your obligations, simply write to me and I will remove your name from the list. I could also add that because of "personal commitments" or "career broadening" you no longer are available to Elmer on a regular basis.

I will be the point-of-contact for this project. I will maintain the list, post it to the groups at least monthly, and have the latest copy placed in the supplemental archives at ftp.cs.buffalo.edu in subdirectory pub/ham-radio.

Here is the latest version of the list. If you sent me mail and are not on it, please resend as it may have been lost on the way or once it reached my host.

73, Paul, KD3FU



ACMNEWS@zeus.unomaha.edu uunet!unocss!zeus!acmnews 137.48.1.1

ps67@umail.umd.edu uunet!mimsy!umail!ps67 128.8.10.28

ON-LINE Elmers Resource Directory (as of 04/01/91)

-----  
John Brewer WB50AU

brewer@anarky.enet.dec.com

Miscellaneous, Wire antennas,  
-----

{ames!ncar!noao!asuvax,mcdphx}!anasaz!rusty anasaz!rusty\  
73 de Rusty Carruth, N7IKQ (602) 870-3330 anasaz.UUCP!rusty>@asuvax  
P.O. Box 27001, Tempe, AZ 85285 rusty%anasaz.UUCP/ \.eas.asu.edu  
Join the Usenet Un-Net on 10M, 1700-1900Z Saturdays, 28.410 or 28.390 MhZ  
The Ham Callsign Project-part 3 (the 1990 version) - its HERE! Email for info  
-----

Dan Halbert, KB1RT  
QTH is West Newton, MA, near Boston.

halbert@crl.dec.com

Building homebrew QRP gear, Advice on simple antennas  
-----

R.D. Keys

Dept. of Crop Science  
NCSU  
Raleigh, NC 27695-7620

rdkeys@ccvr1.cc.ncsu.edu

de NA4G, "Boat Anchor Bob", an ol' cw fart .....

If I can be of assistance in older equipment, junk-boxing  
your way to hamdom, the cheapskate's approach, let me  
know.

22 yrs a ham, extra class, mostly cw, mostly boat anchors  
and radio in the traditional sense.

{Telegraphy has been in my family for almost 100 years!}

-----  
Alan Larson WA6AZP

larson@snmp.sri.com

My areas are fairly general, and I teach classes  
(Novice, with code, and upgrade sessions) at w6yx. My  
main audience is to the Stanford (University)  
community.

-----  
Joel Magid N1HZH/AA

magid@esis.enet.com

ARES/RACES  
Novice Instruction

-----  
Dave Potter, K1MBO

potter@think.com

electronics theory, regulations, antennas and  
transmission lines, operating practices.

-----  
Tony Reeves  
KK6XC  
QTH Beach Area of So. Los Angeles  
Torrance, Redondo Beach, Hermosa Beach, Manhattan beach

tony@hacgate.scg.hac.com

Novice training, local VE for Novice-Tech tests,  
General questions

-----

Paul W. Schleck, KD3FU

acmnews@zeus.unomaha.edu  
ps67@umail.umd.edu

Miscellaneous, Internet, College Clubs

-----

Tom Sefranek WA1RHP

tcs@ll.mit.edu

Elmering for the last 20 years.  
Almost all fields,  
Specializing in power supplies, micro-controllers, antennas

-----

Marty Squicciarini NR3Z

skitch@nadc.navy.mil

DX and Contesting  
QSL'ing

-----

Diana L. Syriac  
Leominster, MA  
dls@genrad.com  
KC1SP

QSL Bureaus (how to use them)  
Volunteer Examiner Service (how to become one)  
Macintosh Hamstacks  
Civil Air Patrol

-----

Robert Taylor K9ALD

rtaylor@ux1.cso.uiuc.edu

K9ALD RT 5, Box 70, Mahomet, IL 61853 217-586-4958

Help on antennas, MARS, components, Tube circuits,  
linear amplifiers, trouble shooting.

-----  
Mike Waters      AA4MW/7

waters@nddsun1.sps.mot.com

Miscellaneous  
-----

Bob Witte                      HP Colorado Springs Division  
bobw@col.hp.com              P.O. Box 2197  
Phone: (719) 590-3230      Colorado Springs, CO 80901  
Radio: KB0CY  
"All Disclaimers Apply."

Miscellaneous  
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End of Directory  
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Date: 2 Apr 91 10:27:32 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Tube designations...  
To: info-hams@ucsd.edu

Over this side of the pond, we have our own tube numbering conventions; these result in some wierd and wonderful ways to say the same thing as the familiar US designations. You all know what a 6L6 is (dont you?), but what the hell is an EBC33?

Typically a European tube will have a code such as

XXNN

where XX is alphabetic and NN numeric.

The 'XX' part tells you about the filament voltage and what the tube is likely to be; the NN tells you the base style.

Componets of filament/function are typically as follows:

First character is filament voltage;

'D' indicates 1.4 volt filament

'E' indicates 6.3 volt filament

Second character indicates tube type; for example:-

'B' signal diode  
'C' signal triode  
'D' ??? (I have never come across this used in practice!)  
'E' ??? Likewise  
'F' Signal pentode  
'G' ??? (not used?)  
'H' Hexode (frequency changer)  
'L' Power pentode or beam-tetrode  
'M' 'Magic-eye' electron-beam tuning indicator.  
'Z' Power rectifier

First digit indicates base type; like this

3 - Octal base.  
5 - 'Loctal' and other wierdos  
6 - not used?  
7 - wire-pin base for subminiature equipment  
8 - B9 series 9-pin glass base  
9 - B7 series 7-pin glass base.

Second digit is a serial number & doesn't really convey much of interest.

In the case of multiple tubes you may find 3 or 4 letters in the first part!

Typical examples are:

EL84 - Power output tube with 6.3V heater on a 9-pin glass base.  
(with about 10 watts plate dissipation - although designed as an audio tube it works well on the low HF bands as a class 'C' PA)

ECH81 - Triode-hexode frequency changer tube with a 6.3 volt heater on a 9-pin glass base.

EF91 - Signal pentode with 6.3 volt heater on a 7-pin glass base.

EM81 - 'Magic eye' tuning indicator with 6.3v heater.

DF91 - Signal pentode with 1.4 volt heater on 7-pin glass base

ECH35 - Triode-hexode frequency changer with 6.3 volt filament, on an octal base.

EBC33 - Double-diode-triode with 6.3v filament on octal base.

EF37 - Audio signal pentode with 6.3v heater and octal base

EL37 - Power-pentode with 6.3v heater on an octal base; (Designed as a sweep-tube for TV but makes a good choice for a HF output stage; bit like a low-power version of the 807).

DL91 - Output pentode with 1.4v filament on a 7-pin glass base.

Theres another series used to identify 'industrial' tubes; for example a QQV07-50 is a double-tetrode (QQ) with an indirectly heated filament (Z) designed for approx. (7)00 volts plate potential, and an expected output of approx. 50 watts.

The British version of JAN (Joint Army-Navy) military designation is the 'CV' series; where each tube/transistor uses the letters 'CV' followed by a (largely meaningless) serial number.

Before this, we had a curious military system that used designations like 'VT' (for 'Valve Transmitting'), 'VI' (for 'Valve Indicating' - i.e. scope tubes) and so on. There was yet another system that was used by the Army before WWII which had designations like 'ARPP' for 'Army Receiving Power Pentode' and 'ARTH' for 'Army Receiving Triode Hexode'.

His Majesty's Navy had a similar system with 'NT' for 'Navy Trensmitter' tubes and so on.

The incompatibility of all this mess was rationalised after WWII into the 'CV' codes which were used by all British forces.

Theres yet another system used by Brimar/STC, so you may find numbers like 5B254M in some European designs..... AAAAAAAAAAAAAARGHHHHHHHHHHHH!!!!!!

Also note that what Statesiders call 'Tubes' or 'Bottles' are really called 'Valves' in the English language....

...-.-

Pete Lucas PJML@UK.AC.NWL.IA G6WBJ@GB7SDN.GBR.EU

-----  
Date: 2 Apr 91 15:30:56 GMT

From: pa.dec.com!rust.zso.dec.com!shlump.nac.dec.com!

koning.enet.dec.com@decwrl.dec.com

Subject: Tube designations...

To: info-hams@ucsd.edu

|>

|>Over this side of the pond, we have our own tube numbering conventions;

|>these result in some wierd and wonderful ways to say the same thing as the

|>familiar US designations. You all know what a 6L6 is (dont you?), but what  
|>the hell is an EBC33?

Actually, it tells you MORE: all the US code tells you is the filament  
voltage.

|>First character is filament voltage;  
|>  
|>'D' indicates 1.4 volt filament  
|>'E' indicates 6.3 volt filament

Depending on the letter, it indicates either voltage or current. For example,  
"E" is 6.3V but current depends on the tube. Conversely, "P" in the  
first letter means 300 mA filament current, voltage varies. "E" tubes  
you'd wire in parallel with a 6.3V transformer; "P" tubes you'd wire in  
series and set up for 300 mA current. You'll find lots of "P" tubes in  
old transformerless TV sets.

|>Second character indicates tube type; for example:-  
|>  
|>'B' signal diode  
Not quite. "A" is signal diode; "B" is dual signal diode.  
|>'C' signal triode  
|>'D' ??? (I have never come across this used in prctice!)  
|>'E' ???                      Likewise  
|>'F' Signal pentode  
|>'G' ??? (not used?)  
|>'H' Hexode (frequency changer)  
Also "K" for "heptode" or "octode" (a.k.a. "pentagrid" in US terminology)  
|>'L' Power pentode or beam-tetrode  
|>'M' 'Magic-eye' electron-beam tuning indicator.  
"X" single power rectifier, directly heated  
"Y" dual power rectifier, directly heated  
|>'Z' Power rectifier  
More precisely, "Z" is indirectly heated (i.e., has separate cathode and  
heater so you don't need a separate filament transformer).

|>First digit indicates base type; like this  
|>  
|> 3 - Octal base.  
4 - 8-pin glass base, looks like miniature with another pin; has a bump  
on the glass for orientation.  
|> 5 - 'Loctal' and other wierdos  
|> 6 - not used?  
|> 7 - wire-pin base for subminiature equipment  
|> 8 - B9 series 9-pin glass base  
|> 9 - B7 series 7-pin glass base.  
|>...

```
|>
|>      Pete Lucas PJML@UK.AC.NWL.IA  G6WBJ@GB7SDN.GBR.EU
|>
```

Incidentally, the European transistor codes are similar in approach, though the details differ.

First letter: material (A = Ge, B = Si, C = GaAs, D = InP (?))  
Second letter: function (A = signal diode low freq, B = signal diode high freq, C = audio transistor, F = RF transistor, S = switch transistor)  
Third letter if present: doesn't seem to mean much but indicates "professional" (as opposed to "consumer") device.  
Numbers: just sequence number as far as I can tell

The distinction between "low" and "high" frequency (or audio vs. RF) use is rather fuzzy at best. Ditto for the "consumer" vs. "professional" classification.

paul, ni1d

-----  
Date: 2 Apr 91 11:16:04 GMT  
From: crash!pro-harvest.cts.com!wlup69@ucsd.edu  
Subject: Who's responsible for Towers anyways?  
To: info-hams@ucsd.edu

In-Reply-To: message from luigi@aix01.aix.rpi.edu

|I always remeber that whenever power failed or a light blew on the tower,  
|it was the FAA that we called to warn, and they were the ones on our back  
|about the tower.

The one thing you have to remember is that your tower is a one of your responsibilities under the your license...You can bet that the FAA couldn't give two piles of rat droppings about compliance with FCC rule violations, so long as pilots can see the things, that's all they'd care about.

ProLine: wlup69@pro-harvest	"That man is the chairman
Internet: wlup69@pro-harvest.cts.com	of the senate prayer
UUCP: crash!pro-harvest!wlup69	comittee. You don't bring
ARPA: crash!pro-harvest!wlup69@nosc.mil	up blowjobs. You wait for
	him to bring them up."
	-- Air America
MA BELL IS A DIRTY OLD BROAD	A damn funny movie.



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Date: (null)

From: (null)

In one sense, the government gives you a license as a reward for learning radio electronics. I suppose they could give you something else, like free beer, instead. I don't think that would be as appropriate, and as I said, they are tight on cash.

-don perley - ke2tp  
perley@trub.crd.ge.com

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End of Info-Hams Digest

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